

## ABSTRACT

The present invention describes several techniques for displaying sonic logging data that provide highly reliable, visual quality-control (QC) indicators. One aspect of the present invention is directed to a novel display of sonic logging data corresponding to a slowness frequency analysis (SFA) projection log. One of the benefits of the SFA projection log display of the present invention is that the format of the information displayed may be used to visually confirm the accuracy/inaccuracy of the processed sonic logging data over selected depth intervals. The SFA projection log display may also be used to visually identify any potential problematic or inconsistent portions of the processed sonic logging information. An overlay of estimated wave slowness information may also be displayed onto the SFA log display in a manner which enables an observer of the SFA log display to visually assess the relative accuracy of the estimated wave slowness information over selected depth intervals. The SFA log display may also include a navigable pointer mechanism configured or designed to allow a user to navigate within the SFA log display in order to access depth specific sonic logging information associated with selected depths. In this way selected characteristics of depth specific sonic logging information may be accessed and displayed concurrently with log information for an entire depth interval.